
VOCAL

Vocal

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INTRODUCTION

After having studied the speaking voice for many years, the Author has finally discovered the vocal scale. The ancient Greeks possessed a highly organized system of theory in music that was based on mathematics just like a yard measurement at the Greenwich Observatory.

The Author has broken away from the old-fashioned musical traditions and uses the word vocal in the place of music. Vocal science is knowledge based on the truth. The rule governing this new form of vocal culture is the correct placing of the voice, first in talking and then in singing, and the two forms of voice, the speaking and the singing, use the same vocal cords.

It is generally believed that the Greeks never made use of any harmony, neither does the Author. Their vocal was therefore entirely melodic, perhaps sung in unison or octaves. This is the only right way to sing. The Tenor is an octave below the Soprano and the Bass an octave below the Contralto respectively.

The Greeks started to sing their vocal in unison. The women sang the same melody an octave higher than the men. Though the Greeks knew the nature of vocal intervals, the distance between any two notes, it is now generally believed that they made no use of any harmony.

The American Vocal Scale is based on mathematics and measure just as if you used a yard stick.

Ancient vocal teachers guessed at the type of voice. Modern vocal teachers measure the human voice.

VARIOUS VOICES

The normal singing voice is divided into four classes as follows, beginning with the highest: Women's Voices: Soprano and Contralto; Men's Voices: Tenor and Bass. The so-called unchanged voices of young boys also embrace Soprano and Contralto.

There is positively no Baritone or Mezzo-Soprano voice. The normal speaking voice is the same as the singing voice. There are only two pitches, C and F.

The falsetto is a false voice that lies above its natural compass. The point of change from normal voice to falsetto will cause the voice to break. There are no breaks in the normal voice except when the singer tries to sing other voices; in other words, the voices above or below are false unless developed.

God placed the women's voices on the soprano or the contralto register, and the men's voices on the tenor or bass register.

All other voices are placed and developed by the singers themselves, with years of training, so it is much easier to sing with the voice where God placed it.

Changing the falsetto or false voice to a normal voice can be done only by comparing the normal voice, which you use when speaking, to the falsetto. It is much easier to train the natural voice.

Now in order to bring about the radical reform, a new method of vocal culture is based on a new foundation more modern and original, but some of these disputable traditions that have been passed down to us, should have been discarded years ago.

In singing Do Re Mi Fa So La Si Do observe strictly the Italian pronunciation in front of the

mouth, roll your Re. The American Vocal Scale gives a clear conception of the normal range of the voice.

Do not sing with a Harmonizer; it will throw your voice off pitch. A chorus is no place to learn singing.

The normal human voice contains about 14 notes.

G A B C D E F G A B C D E F

The only musical instruments that can follow the American Vocal Scale are as follows: the human voice and the Electric Vocal Organ.

When the Tenor sings middle C he sings Ah in Tenor quality. When the Bass sings middle C he sings Er in Bass quality. Both sing middle C in different quality.

The American Vocal Scale fits the human voice but not other musical instruments.

The Castrato is an artificially formed Soprano or treble singer. The male soprano is definitely a different voice to the female soprano. The male soprano vocal cords are longer than the female, and therefore the resulting voice is different. The male soprano is the voice above Tenor, when developed.

The singer does not develop the vocal cords but the adjustment muscles which go up and down them.

The yodler is a singer who by frequent alternation of falsetto tones with natural tones warbles a song.

Guido d' Arezzo, a Benedictine Monk (995–1050) invented the four-line staff. In the middle ages, men did most of the singing, so the music was written in a range to suit their voices, middle C for the tenor clef and F below middle C for the bass clef. Sometimes, there were three lines to a staff, sometimes four or five.

AUTHENTIC AMERICAN VOCAL SCALE

Authentic American Vocal Scale: G A B C D E F G A B C D E F.

The soprano clef is C above middle C.

The contralto clef is F above middle C.

The tenor clef is middle C.

The bass clef is F below middle C.

This is for normal voices only.

All bass singers speak on F below middle C, so there is no baritone register between tenor and bass. It does not exist. A bass is just a normal voice, and God has placed our normal voices.

Sometimes it is very hard to tell the difference between a high Bass and a Tenor, and a young man studying may think he is a Tenor when he is a high Bass.

To get a fine forward Ah one must start it in the back of the throat and sing against the front arch of the mouth, not out of the mouth first.

The reason for opening the mouth wider for the high tones is to make them bigger and not small and thin.

Never whisper in singing for the tones do not come from the head or chest but only from the vocal cords.

The Soprano register contains just 14 notes. When a Soprano wants to sing dramatic roles, she uses her full voice, and her half voice for lyric parts. The Soprano voice can be made lyric or dramatic by years of training. However, she still is listed as a Soprano.

The absolute pitch is the ability to recognize any tone. This can be done by anyone with normal hearing, if it is cultivated by training.

The word vocal is used by the Author in the place of music, because the closer you get to the human voice with vocal instruments, the more beautiful is the tone.

The new American voice system uses a vocal scale; the old-fashioned one, a musical scale.

The Electric Female Vocal Organ and the Electric Male Vocal Organ are made to follow the American Vocal Scale, and so is the human voice.

For singing in octaves, use sopranos who sing C above middle C and tenors who sing middle C, and likewise contraltos who sing F above middle C and basses who sing F below middle C.

For singing in unison, use two sopranos or two contraltos; the same applies to tenors and basses.

The old musical scale is C D E F G A B C.

The new American Vocal scale is G A B C D E F G A B C D E F.

The human voice starts on G and finishes on F; only by straining the voice will it go any further.

All small boys and girls sing either Soprano or Contralto. The girls' voices remain the same unless they themselves change them and the boys' voices change into men's voices, Tenor or Bass.

Lucrezia Agujari sang High Soprano high C and this is as high as words can be sung. No words should be sung on D, E and F, otherwise the voice will be ruined. Ludwig Fisher, a Bass, sang down to contra F, an entire octave lower than the ordinary Bass singer. The note generally considered the limit is G in Sub-Bass register.

FRANCESCO TAMAGNO'S AND ENRICO CARUSO'S VOICE AND PRODUCTION METHOD WITH THE AMERICAN VOCAL SCALE

Follow Francesco Tamagno's and Enrico Caruso's Voice Production Method with the American Vocal Scale.

Francesco Tamagno was the greatest Tenor of his time. He had a fine physique, was tall, big-chested with a Tenor voice that produced the most wonderful robust tones ever heard. Doubtless he owed his fine physique to his active outdoor life.

No singers have a two octave range in their normal voice. You cannot sing tenor and bass together; you are either one or the other.

Your voice uses the key of C or the key of F. Why not use your own voice key instead of pitch pipes and the piano?

Enrico Caruso was the greatest Tenor of his generation. His voice was of unrivalled sweetness. He sang Lyric and Dramatic Tenor with one and the same voice.

He sang with a beautiful pure Tenor voice and his pitch was perfect, right on middle C and he stayed on the Tenor range in all of his songs.

Caruso could sing as well in English as in Italian, as far as voice production is concerned, but his English was Italian in pronunciation and accent.

One singer said that Caruso's voice had too much Ah in it. Why? This was the foundation of his voice while she had no foundation to her voice.

When Caruso sang middle C he sang it in Tenor and high C in Tenor. In singing any song his Bass register was not used. Tenors should not mix registers.

The argument about the Caruso-Scotti record in 1906 concerns the identity of the voices in the opening measures and is the natural result of a remarkable similarity between Caruso's and Scotti's voice.

Contrary to the usual impression, it is Caruso, not Scotti, who begins the record. Since Caruso's middle C, in his Tenor range was highly developed, which was his pitch note, and Scotti's F below middle C, only four notes apart in Bass, was his pitch note, it was very hard to tell them apart.

Caruso did not have any Baritone or Bass quality in his Tenor voice. God gave us normal voices with normal range. Why mix them all up?

Caruso could sing a good Bass and Tenor; he was an exception. Other singers claim the same ability as Caruso, but their ears are not keen, so they do not know where their voice should be placed.

Caruso's singing of "Dreams of Long Ago" in the English language was in a voice of unimpeachable tenor quality and faultlessly placed. It is ringing and vibrant and conveys a sense of ample reserve power which gives the hearer faith in its staying qualities. Caruso turned song after song into a stream of gold. His phonograph records are masterpieces and should be heard whenever possible.

Unison implies two parts are played together, at the same time, such as two sopranos, or, if this is not practical, at least in octaves, such as one soprano and one tenor singing one octave apart.

The American Vocal Scale makes no use of harmony or of chords but is entirely melodic. It is sung in unison or octaves. This applies to all songs.

The dramatic soprano has not a larger compass than the coloratura soprano; true, her voice is heavier than the coloratura soprano and incapable of being handled with the same agility. It is, however, only a case of the soprano voice being trained differently, and the quality remains the same.

The Soprano and Bass should never sing together and the same applies to the Contralto and Tenor.

REGISTER OF THE VOICE

Each voice has its own register and the vocal registers are synonymous with the different kinds of voices. In speaking of soprano, contralto, tenor, and bass register, these registers all stand for quality.

Singers should stay on their own register. There are no three divisions of the voice. All tenors could, as I have stated, sing the whole tenor range in the tenor register.

The so-called "breaks" in the voice occur at points where one register passes into another. This is true. However, if the singer is singing tenor he must stay on the tenor register. The 14 notes of his register should be enough for him to sing on.

There is no chest register, middle register, or head register. The sooner we get away from tradition, the better it will be for all of us.

Suppose a man was able to produce the male vocal compass; he would start at the sub-bass register, then go into the bass register, then tenor register, the male soprano register would be next and last the high male soprano register. Only then would there be any sense in blending registers.

Each normal voice has its own register; soprano register, contralto register, tenor register and bass register. They are all told by quality and each one has 14 notes.

A baritone is not a high bass nor a voice between bass and tenor and partaking somewhat of the quality of both, but it is just a normal bass voice on the bass register.

A fine ear may determine that the seeming contralto is a true soprano or that the would-be tenor has bass timbre and that his high notes will never ring out with true tenor quality.

Always remember that the male normal voice is an octave below the female normal voice. The distinguishing difference between all voices is in the quality, therefore tenor quality and tenor register is synonymous. The world is full of pure soprano and contralto voices. There are only soprano registers and contralto registers in the normal female voice. The greatest Masters of vocal culture recognize this, so in the normal female voice we must acknowledge just one register for each voice.

A soprano voice should not be treated as though it were contralto, or a tenor as a bass because the compass is never the same. Good vocal tones depend upon beautiful sound and a sensitive and educated ear. When tenors sing their high C they must not use the Falsetto high C. In Italy they do not like the high notes in the falsetto, as it is not considered a mark of good singing, but in case of a tenor he may use a tone which in sound is almost falsetto but is really merely a mezza voce or half voice. This latter belongs to a tenor compass; a falsetto does not.

To take a full breath the chest must be raised at the same moment that the abdomen sinks in. The diaphragm by practice acquires great strength and assists considerably in this process of respiration. The singer should learn the art of respiration and plan to breathe through the nose.

Nothing is easier than to force a voice upwards or downwards beyond the 14 notes allowed and after two or three years the singer will not be able to sing at all; so stay on your own register. The most important thing is to cultivate the sense of hearing by listening to everybody's voice, by listening to radio stations and noticing the tone, taking pains to distinguish tones and keys by ear.

A portable professional recorder with a built-in radio is a good investment and the singer has it at his command to improve himself by critically listening to his own recordings. Taking up radio operating make the ears very keen if you judge the different sounds.

The female electric vocal organ and the male electric vocal organ uses only one voice each. When the soprano voice is being played on the female electric vocal organ, the tenor voice should be played on the male electric vocal organ by another player; or, when the contralto voice is being played on the female electric vocal organ, the bass voice should be played on the male electric vocal organ by a different player. These two organs must be played in octaves or one voice only, or in unison, no chords or dischords being allowed as in the old-fashioned musical instruments.

The international pitch should be C or F because these are the two pitches the human voice uses and all other clefs and pitches are superfluous. Here again the American Vocal Scale is based on mathematics like any other measurements.

RIDICULOUS CLAIMS

Mezzo-Soprano
Mezzo-Contralto
Counter-Tenor
Tenor-Baritone
Baritone-Tenor
Alto-Baritone
Baritone-Bass
Bass-Baritone
Head-Voice
Chest-Voice
High-Register
Medium-Register
Low-Register

DIFFERENT VOICES

NORMAL VOICES

Female Voices

Soprano Voice
Contralto Voice

Male Voices

Tenor Voice
Bass Voice

HYPHENATED VOICES

Female Voices

High-Soprano
Female-Tenor
Sub-Contralto

Male Voices

Male High-Soprano
Male-Soprano
Male-Contralto
Sub-Bass

THE LYRIC SOPRANO

The lyric soprano voice uses a half voice for her C pitch note, the C above middle C, and for her notes close to the top a full voice. In other words, a lyric soprano is just a normal soprano singing with a light voice. The clef she uses is C-clef and her register consists of 14 notes in soprano.

THE COLORATURA SOPRANO

The coloraturo soprano uses a half voice on her C above middle C. This is the pitch note. Her notes close to the top consist of vocal runs, passages, trills and embellishments in full voice and there are only 14 notes in her register as in any other normal soprano voice.

DRAMATIC SOPRANO

A dramatic soprano is a full voice normal soprano. In other words, she can sing her 14 notes in the soprano register with a full voice. No soprano has a two octave range, because when she sings above the soprano register, her voice will be high-soprano and when she sings below the soprano register, her voice will be on the contralto register. The normal soprano voice register consists of only 14 notes, and she is just another soprano.

HIGH-SOPRANO

The high soprano voice register is just above the normal soprano voice register. To cultivate this voice would take years of training. Lucrezia Agujari trained her high soprano voice successfully.

FEMALE-TENOR

Any contralto can sing female tenor, since the contralto is on the same register as the tenor. Of course, the female vocal cords are shorter than the male so the difference must be taken up by the adjustment muscles. She is still a female tenor. Her normal pitch note is F above middle C. All she has to do is to drop her pitch note down to middle C and she can sing a female tenor voice. This is just another cultivated voice.

SUB-CONTRALTO

If the normal contralto dropped her voice, from her normal F note in contralto, to one octave below, that would be F. She would be able to sing down to G in the sub-contralto register. This register consists of 7 notes and is seldom used.

LYRIC TENOR

The lyric tenor sings his middle C which is his pitch note in half voice and the notes close to the top in a full ringing voice. The normal tenor register consists of 14 notes and his clef is C clef.

DRAMATIC TENOR

The dramatic tenor is of full unimpeachable tenor quality and should be faultlessly placed for the whole of his 14 notes. His pitch note is middle C and the clef is the same. There is no tenor who has a range of two octaves. The normal tenor register consists of only 14 notes. Above the tenor register is male soprano and below the tenor register is bass. When the dramatic tenor sings the high C above his middle C, it should be a clear and ringing high C.

LYRIC BASS

The lyric bass voice uses a half voice for his F below middle C. This is his pitch and F clef is his clef. The normal bass voice is mistaken for tenor and sometimes for baritone. A high bass is not a tenor and there is no such voice as a baritone. The normal bass voice consists of 14 notes. His high C is middle C on which he sings ER. Of course, the tenor speaks on this C.

DRAMATIC BASS

The dramatic bass voice in singing dramatic roles uses his full voice for the 14 notes. His pitch is F below middle C and his clef F. This is not a baritone but just a normal bass voice and he has 14 notes like other normal voices on his own register.

MALE HIGH-SOPRANO

The male high-soprano is above the male soprano register. It would take years to develop this voice and only a real male soprano would be able to sing in this male high-soprano register.

MALE-SOPRANO

The male soprano voice register is just above the tenor register. The male soprano is not the usual falsetto so often heard in male soprano sections of choral groups. Since the vocal cords in the male soprano are longer than in the female soprano, the difference will have to be taken up by the adjustment muscles. The pitch note is C above middle C and he uses C clef. His register consists of 14 notes.

MALE-CONTRALTO

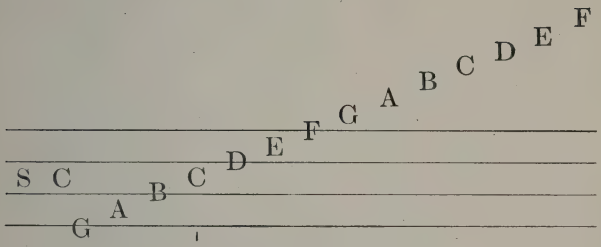
Any tenor can sing male contralto, since his pitch note is middle C. All he has to do is to raise his pitch note, the middle C, to the F above. He will then be able to sing male contralto. The F clef should be used, and 14 notes would be in his register.

SUB-BASS

The normal bass voice can sing sub-bass voice if he drops his bass voice, from F in bass register to F one octave below in the sub-bass register; he can then go down to G. This is a cultivated voice.

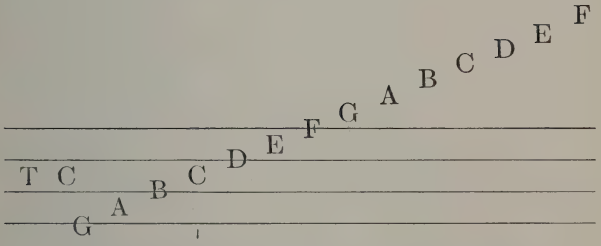
VOICE CLEFS

Soprano C Clef



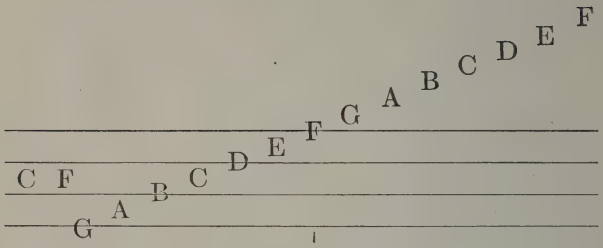
Speak Pitch:
C above middle C

Tenor C Clef



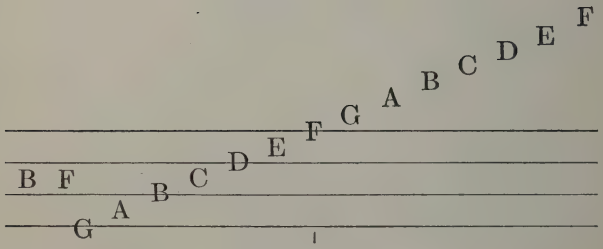
Tenor speaks one octave below Soprano
or on middle C

Contralto F Clef



Speak Pitch:
The F above middle C

Bass F Clef



Speak Pitch:
The F below middle C

FRANCESCO TAMAGNO'S VOICE

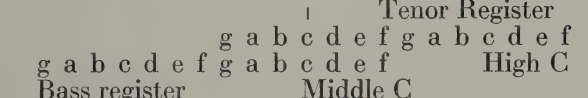
Middle C Tenor Pitch

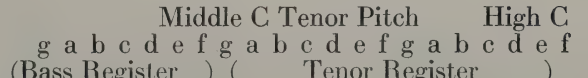
g	a	b	c	d	e	f	g	a	b	c	d	e	f
ah	ah	ah	ah	ah	ah	ah	er	er	er	er	ee	ee	ee

High C

Tamagno is singing the Tenor Register.

ENRICO CARUSO'S VOICE





(Caruso is singing two octaves)

The Normal Female Soprano Voice Register

No words should be sung above high C.

High C

g a b c d e f g a b c d e f

ah ah ah ah ah ah ah oh oh oh oh oo oo oo

Pitch

C above middle C and the note she uses when talking to anybody.

The Normal Female Contralto Voice Register

No words should be sung above high C.

Middle C												*High C*
g	a	b	c	d	e	f	g	a	b	c	d	e	f
ah	ah	ah	ah	ah	ah	ah	er	er	er	er	ee	ee	ee
						Pitch							

F above middle C and the note she uses when talking to anybody.

The Normal Male Tenor Voice Register

No words should be sung above high C.

Middle C *High C*

g a b c d e f g a b c d e f
ah ah ah ah ah ah ah er er er er ee ee ee

Pitch

Middle C and the note he takes his pitch from when talking to anybody.

The Normal Male Bass Voice Register

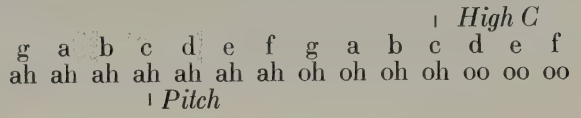
No words should be sung above high C.

														High C
g	a	b	c	d	e	f	g	a	b	c	d	e	f	
ah	ah	ah	ah	ah	ah	ah	er	er	er	er	ee	ee	ee	
						Pitch							*Middle C*	

F below middle C and the note he takes his pitch from when talking to anybody.

The Female Developed High Soprano Voice Register

No words should be sung above high C.



Second C above middle C, the pitch note the normal soprano used, to go an octave above normal soprano high C. These notes are false unless developed into a natural high soprano voice.

The Female Developed Tenor Voice Register

No words should be sung above high C.

														High C
g	a	b	c	d	e	f	g	a	b	c	d	e	f	
ah	ah	ah	ah	ah	ah	ah	er	er	er	er	ee	ee	ee	
					Pitch									

The normal Contralto lowers her pitch note from F to middle C and her range will be the same as a Tenor. Any normal Contralto can do this.

The Female Developed Sub-Contralto Voice Register

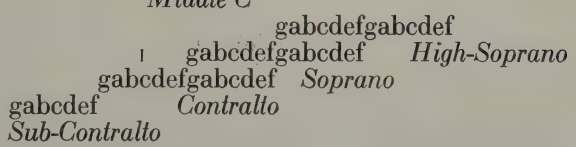
These notes are false unless developed into a natural voice.

| Pitch

g a b c d e f
ah ah ah ah ah ah ah

If the normal contralto lowers her pitch note F one octave below, she will be able to sing Sub-Contralto.

Female Voice in Registers



The Male Developed High Soprano Voice Register

No words should be sung above high C.

												↓ High C		
g	a	b	c	d	e	f	g	a	b	c	d	e	f	
ah	ah	ah	ah	ah	ah	ah	oh	oh	oh	oh	oo	oo	oo	
			↓ *Pitch*											

If the male soprano develops his falsetto above his male soprano register, he will be able to sing male high soprano.

The Male Developed Soprano Voice Register

No words should be sung above high C.

														High C
g	a	b	c	d	e	f	g	a	b	c	d	e	f	
ah	ah	ah	ah	ah	ah	ah	oh	oh	oh	oh	oo	oo	oo	
					Pitch									

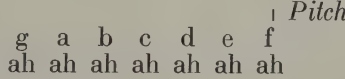
If the normal Tenor develops his register above Tenor one octave above middle C, he would be able to sing male soprano.

The Male Developed Contralto Voice Register

Middle C														*High C*
g	a	b	c	d	e	f	g	a	b	c	d	e	f	
ah	ah	ah	ah	ah	ah	ah	er	er	er	er	ee	ee	ee	
						Pitch								

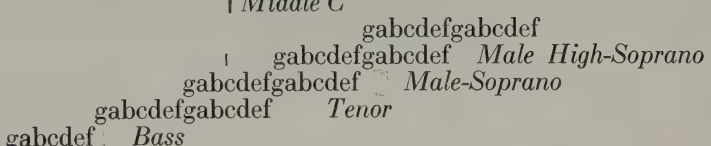
If the normal Tenor uses F above middle C, he will be able to sing Male Contralto.
The Tenor and the Male Contralto have the same range, the only difference is in their pitch notes.

The Male Developed Sub-Bass Voice Register

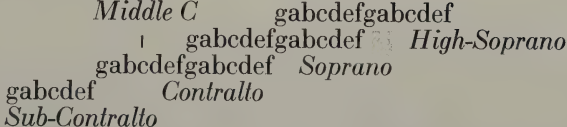


If the normal Bass lowers his pitch note F one octave below, he will be able to sing Sub-Bass. These notes are false until developed into a natural voice. They are not very often used.

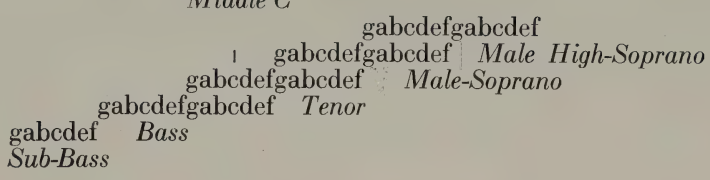
Male Voice in Registers



Female Electric Vocal Organ



Male Electric Vocal Organ



Vocal Scale Frequencies

G	A	B	C	D	E	F		
7	8	9	10	11	12	13	1	STEP
14	16	18	20	22	24	26	2	STEPS
28	32	36	40	44	48	52	4	STEPS
56	64	72	80	88	96	104	8	STEPS
112	128	144	160	176	192	208	16	STEPS
224	256	288	320	352	384	416	32	STEPS
448	512	576	640	704	768	832	64	STEPS
896	1024	1152	1280	1408	1536	1664	128	STEPS

Middle C 160 Cycle Per Second with Air Power

John Francis Sullivan.